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CALIFORNIA LEGISLATURE—2007–08 REGULAR SESSION

ASSEMBLY BILL

No. 1920

Introduced by Assembly Member Huffman
**(Coauthors: Assembly Members *Hancock*, *Laird*, *Leno*, *Lieber*,
and *Portantino*)**
(Coauthor: Senator Migden)

February 8, 2008

An act to amend Section 25782 of the Public Resources Code, and to amend Sections 387.5 and 2827 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1920, as amended, Huffman. Solar and wind generating resources: net metering.

(1) The existing Public Utilities Act imposes various duties and responsibilities on the Public Utilities Commission with respect to the purchase of electricity and requires the commission to review and adopt a procurement plan and a renewable energy procurement plan for each electrical corporation pursuant to the California Renewables Portfolio Standard Program. The program requires that a retail seller of electricity, including electrical corporations, community choice aggregators, and electric service providers, but not including local publicly owned electric utilities, purchase a specified minimum percentage of electricity generated by eligible renewable energy resources, as defined, in any given year as a specified percentage of total kilowatthours sold to retail

end-use customers each calendar year. Under existing law the governing board of a local publicly owned electric utility is responsible for implementing and enforcing a renewables portfolio standard *that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.*

The act defines an “electric service provider” as an entity that offers electrical service to customers within the service territory of an electrical corporation, as defined. Pursuant to the act, an “electric service provider” does not include an electrical corporation or a local publicly owned electric corporation, but does include the unregulated affiliates and subsidiaries of an electrical corporation.

Existing law relative to private energy producers defines an “electric service provider” as an electrical corporation, electrical cooperative, or local publicly owned electric utility, excluding a local publicly owned electric utility that serves more than 750,000 customers and that also conveys water to its customers. Existing law relative to private energy producers requires every electric service provider, upon request, to make available to an eligible customer-generator, as defined, a standard contract or tariff for net energy metering on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds a specified amount. Existing law provides that where the electricity generated by the eligible customer-generator exceeds the electricity supplied by the electric service provider during a 12-month period, the eligible customer-generator is a net electricity producer and the electric service provider retains any excess kilowatthours generated and the customer-generator is not owed compensation for those excess kilowatthours unless the electric service provider enters into a purchase agreement with the eligible customer-generator for those excess kilowatthours.

This bill would replace the definition of “electric service provider” in existing law relative to private energy producers with a definition of “electric utility.” The bill would require the ratemaking authority, as defined, for the electric utility to adopt, by July 1, 2009, a net surplus electricity compensation rate to compensate a net surplus customer-generator, as defined, for net surplus electricity, as defined, generated by an eligible customer-generator and delivered to the grid that is in excess of the amount of electricity that is delivered from the

grid to the eligible customer-generator. The bill would require the electric utility to offer a standard contract or tariff to eligible customer-generators that includes this rate ~~until the time that the total rated generating capacity used to generate net surplus electricity exceeds 5% of the electric utility's aggregate customer peak demand. The net surplus electricity compensation rate would be applicable to any eligible customer-generator that affirmatively elects to receive net surplus electricity compensation.~~ *The bill would require the electric utility, upon an affirmative election by the eligible customer-generator to receive service pursuant to this contract or tariff, to either: (1) provide net surplus electricity compensation for any net surplus electricity generated in the 12-month period, or (2) allow the eligible customer-generator to apply the net surplus electricity as a credit for kilowatthours consumed during the following 12-month period.* The bill would, for an electric utility that is an electrical corporation or electrical cooperative, authorize the commission to adopt requirements for providing notice and the manner by which eligible customer-generators may elect to receive net surplus electricity compensation. ~~The bill would provide that upon adoption of the net surplus electricity compensation rate and the eligible customer-generator electing to receive net surplus electricity compensation, any renewable energy credit, as defined, for net surplus electricity belongs to the electric utility purchasing the electricity and that net surplus electricity counts toward the electric utility's renewables portfolio standard purchasing requirements.~~

Under existing law, a violation of any order, decision, rule, direction, demand, or requirement of the commission is a crime.

Because this bill would require action by the commission to implement *certain of* its requirements, a violation of these provisions would impose a state-mandated local program by expanding the definition of a crime.

(2) In a decision, the commission adopted the California Solar Initiative to provide incentives to customer-side photovoltaics and solar thermal electric projects under one megawatt. Existing law requires the commission, in implementing the California Solar Initiative, as defined, to authorize the award of monetary incentives for up to the first megawatt of alternating current generated by a solar energy system, as defined, that meets eligibility criteria established by the State Energy Resources Conservation and Development Commission. The eligibility requirements include a requirement that the solar energy system is intended primarily to offset part or all of the consumer's own electricity

demand. Existing law requires the governing body of a local publicly owned electric utility that sells electricity at retail, to adopt, implement, and finance a solar initiative program, for the purpose of investing in, and encouraging the increased installation of, residential and commercial solar energy systems, meeting certain requirements. The eligibility requirements include the requirement that solar energy systems receiving monetary incentives are intended primarily to offset part or all of the consumer's own electricity demand.

~~This bill would provide that investments for solar energy systems that exceed the electricity demand of a consumer shall be permitted, but only the capacity needed to offset part or all of the electricity demand of a consumer is eligible for ratepayer-funded monetary incentives pursuant to the solar initiative programs upon a request by the consumer; a solar energy system may be sized pursuant to the California Solar Initiative, to meet the future anticipated electrical demand increases of the consumer, as determined by the Public Utilities Commission, including the addition of one or more electric vehicles.~~

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 25782 of the Public Resources Code is
- 2 amended to read:
- 3 25782. (a) The commission shall, by January 1, 2008, in
- 4 consultation with the Public Utilities Commission, local publicly
- 5 owned electric utilities, and interested members of the public,
- 6 establish eligibility criteria for solar energy systems receiving
- 7 ratepayer-funded incentives that include all of the following:
- 8 (1) Design, installation, and electrical output standards or
- 9 incentives.
- 10 (2) The solar energy system is intended primarily to offset part
- 11 or all of the electricity demand of the consumer. ~~Investments for~~
- 12 ~~solar energy systems that exceed the electricity demand of the~~
- 13 ~~consumer shall be permitted, but only the capacity needed to offset~~

1 ~~part or all of the electricity demand of the consumer is eligible for~~
2 ~~ratepayer-funded monetary incentives.~~ *Upon request by the*
3 *consumer, a solar energy system may be sized to meet the future*
4 *anticipated electrical demand increases of the consumer, as*
5 *determined by the Public Utilities Commission, including the*
6 *addition of one or more electric vehicles.*

7 (3) All components in the solar energy system are new and
8 unused, and have not previously been placed in service in any
9 other location or for any other application.

10 (4) The solar energy system has a warranty of not less than 10
11 years to protect against defects and undue degradation of electrical
12 generation output.

13 (5) The solar energy system is located on the same premises of
14 the end-use consumer where the consumer's own electricity
15 demand is located.

16 (6) The solar energy system is connected to the electrical
17 corporation's electrical distribution system within the state.

18 (7) The solar energy system has meters or other devices in place
19 to monitor and measure the system's performance and the quantity
20 of electricity generated by the system.

21 (8) The solar energy system is installed in conformance with
22 the manufacturer's specifications and in compliance with all
23 applicable electrical and building code standards.

24 (b) The commission shall establish conditions on
25 ratepayer-funded incentives that require all of the following:

26 (1) Appropriate siting and high-quality installation of the solar
27 energy system by developing installation guidelines that maximize
28 the performance of the system and prevent qualified systems from
29 being inefficiently or inappropriately installed. The conditions
30 established by the commission shall not impact housing designs
31 or densities presently authorized by a city, county, or city and
32 county. The goal of this paragraph is to achieve efficient
33 installation of solar energy systems to promote the greatest energy
34 production per ratepayer dollar.

35 (2) Optimal solar energy system performance during periods of
36 peak electricity demand.

37 (3) Appropriate energy efficiency improvements in the new or
38 existing home or commercial structure where the solar energy
39 system is installed.

1 (c) The commission shall set rating standards for equipment,
2 components, and systems to ensure reasonable performance and
3 shall develop standards that provide for compliance with the
4 minimum ratings.

5 (d) Upon establishment of eligibility criteria pursuant to
6 subdivision (a), no ratepayer-funded incentives shall be made for
7 a solar energy system that does not meet the eligibility criteria.

8 SEC. 2. Section 387.5 of the Public Utilities Code is amended
9 to read:

10 387.5. (a) In order to further the state goal of encouraging the
11 installation of 3,000 megawatts of photovoltaic solar energy in
12 California within 10 years, the governing body of a local publicly
13 owned electric utility, as defined in subdivision (d) of Section
14 9604, that sells electricity at retail, shall adopt, implement, and
15 finance a solar initiative program, funded in accordance with
16 subdivision (b), for the purpose of investing in, and encouraging
17 the increased installation of, residential and commercial solar
18 energy systems.

19 (b) On or before January 1, 2008, a local publicly owned electric
20 utility shall offer monetary incentives for the installation of solar
21 energy systems of at least two dollars and eighty cents (\$2.80) per
22 installed watt, or for the electricity produced by the solar energy
23 system, measured in kilowatthours, as determined by the governing
24 board of a local publicly owned electric utility, for photovoltaic
25 solar energy systems. The incentive level shall decline each year
26 thereafter at a rate of no less than an average of 7 percent per year.

27 (c) A local publicly owned electric utility shall initiate a public
28 proceeding to fund a solar energy program to adequately support
29 the goal of installing 3,000 megawatts of photovoltaic solar energy
30 in California. The proceeding shall determine what additional
31 funding, if any, is necessary to provide the incentives pursuant to
32 subdivision (b). The public proceeding shall be completed and the
33 comprehensive solar energy program established by January 1,
34 2008.

35 (d) The solar energy program of a local publicly owned electric
36 utility shall be consistent with all of the following:

37 (1) That a solar energy system receiving monetary incentives
38 comply with the eligibility criteria, design, installation, and
39 electrical output standards or incentives established by the State

1 Energy Resources Conservation and Development Commission
2 pursuant to Section 25782 of the Public Resources Code.

3 (2) That solar energy systems receiving monetary incentives
4 are intended primarily to offset part or all of the consumer's own
5 electricity demand. ~~Investments for solar energy systems that~~
6 ~~exceed the electricity demand of a consumer shall be permitted,~~
7 ~~but only the capacity needed to offset part or all of the electricity~~
8 ~~demand of the consumer is eligible for ratepayer-funded monetary~~
9 ~~incentives.~~ *Upon request by the consumer, a solar energy system*
10 *may be sized to meet the future anticipated electrical demand*
11 *increases of the consumer, as determined by the commission,*
12 *including the addition of one or more electric vehicles.*

13 (3) That all components in the solar energy system are new and
14 unused, and have not previously been placed in service in any
15 other location or for any other application.

16 (4) That the solar energy system has a warranty of not less than
17 10 years to protect against defects and undue degradation of
18 electrical generation output.

19 (5) That the solar energy system be located on the same premises
20 of the end-use consumer where the consumer's own electricity
21 demand is located.

22 (6) That the solar energy system be connected to the electric
23 utility's electrical distribution system within the state.

24 (7) That the solar energy system has meters or other devices in
25 place to monitor and measure the system's performance and the
26 quantity of electricity generated by the system.

27 (8) That the solar energy system be installed in conformance
28 with the manufacturer's specifications and in compliance with all
29 applicable electrical and building code standards.

30 (e) A local publicly owned electric utility shall, on an annual
31 basis beginning June 1, 2008, make available to its customers, to
32 the Legislature, and to the State Energy Resources Conservation
33 and Development Commission, information relating to the utility's
34 solar initiative program established pursuant to this section,
35 including, but not limited to, the number of photovoltaic solar
36 watts installed, the total number of photovoltaic systems installed,
37 the total number of applicants, the amount of incentives awarded,
38 and the contribution toward the program goals.

39 (f) In establishing the program required by this section, no
40 moneys shall be diverted from any existing programs for

1 low-income ratepayers, or from cost-effective energy efficiency
2 or demand response programs.

3 (g) The statewide expenditures for solar programs adopted,
4 implemented, and financed by local publicly owned electric utilities
5 shall be seven hundred eighty-four million dollars (\$784,000,000).
6 The expenditure level for each local publicly owned electric utility
7 shall be based on that utility's percentage of the total statewide
8 load served by all local publicly owned electric utilities.
9 Expenditures by a local publicly owned electric utility may be less
10 than the utility's cap amount, provided that funding is adequate to
11 provide the incentives required by subdivisions (a) and (b).

12 SEC. 3. Section 2827 of the Public Utilities Code is amended
13 to read:

14 2827. (a) The Legislature finds and declares that a program
15 to provide net energy metering combined with net surplus
16 compensation, co-energy metering, and wind energy co-metering
17 for eligible customer-generators is one way to encourage substantial
18 private investment in renewable energy resources, stimulate in-state
19 economic growth, reduce demand for electricity during peak
20 consumption periods, help stabilize California's energy supply
21 infrastructure, enhance the continued diversification of California's
22 energy resource mix, reduce interconnection and administrative
23 costs for electricity suppliers and encourage conservation and
24 efficiency.

25 (b) As used in this section, the following terms have the
26 following meanings:

27 (1) "Co-energy metering" means a program that is the same in
28 all other respects as a net energy metering program, except that
29 the local publicly owned electric utility has elected to apply a
30 generation-to-generation energy and time-of-use credit formula
31 as provided in subdivision (i).

32 (2) "Electrical cooperative" means an electrical cooperative as
33 defined in Section 2776.

34 (3) "Electric utility" means an electrical corporation, a local
35 publicly owned electric utility, or an electrical cooperative, or any
36 other entity, except an electric service provider, that offers electrical
37 service. This section shall not apply to a local publicly owned
38 electric utility that serves more than 750,000 customers and that
39 also conveys water to its customers.

(4) “Eligible customer-generator” means a residential, small commercial customer as defined in subdivision (h) of Section 331, commercial, industrial, or agricultural customer of an electric utility, who uses a solar or a wind turbine electrical generating facility, or a hybrid system of both, with a capacity of not more than one megawatt that is located on the customer’s owned, leased, or rented premises, and is interconnected and operates in parallel with the electric grid.

(5) “Net energy metering” means measuring the difference between the electricity supplied through the electric grid and the electricity generated by an eligible customer-generator and fed back to the electric grid over a 12-month period as described in subdivisions (c) and (h).

(6) “Net surplus customer-generator” means an eligible customer-generator that generates more electricity during a 12-month period than is supplied by the electric utility to the eligible customer-generator during the same 12-month period.

(7) “Net surplus electricity” means all electricity generated by an eligible customer-generator measured in kilowatthours over a 12-month period that exceeds the amount of electricity consumed by that eligible customer-generator.

(8) “Net surplus electricity compensation” means a per kilowatthour rate offered by the electric utility to the net surplus customer-generator for net surplus electricity that is set by the ratemaking authority pursuant to subdivision (h).

(9) “Ratemaking authority” means, for an electrical corporation or electrical cooperative, the commission, and for a local publicly owned electric utility, the local elected body responsible for setting the rates of the local publicly owned utility.

(10) “Wind energy co-metering” means any wind energy project greater than 50 kilowatts, but not exceeding one megawatt, where the difference between the electricity supplied through the electric grid and the electricity generated by an eligible customer-generator and fed back to the electric grid over a 12-month period is as described in subdivision (h). Wind energy co-metering shall be accomplished pursuant to Section 2827.8.

(c) (1) Every electric utility shall develop a standard contract or tariff providing for net energy metering, and shall make this standard contract or tariff available to eligible customer-generators, upon request, on a first-come-first-served basis until the time that

1 the total rated generating capacity used by eligible
2 customer-generators exceeds 2.5 percent of the electric utility's
3 aggregate customer peak demand. Net energy metering shall be
4 accomplished using a single meter capable of registering the flow
5 of electricity in two directions. An additional meter or meters to
6 monitor the flow of electricity in each direction may be installed
7 with the consent of the eligible customer-generator, at the expense
8 of the electric utility, and the additional metering shall be used
9 only to provide the information necessary to accurately bill or
10 credit the eligible customer-generator pursuant to subdivision (h),
11 or to collect solar or wind electric generating system performance
12 information for research purposes. If the existing electrical meter
13 of an eligible customer-generator is not capable of measuring the
14 flow of electricity in two directions, the eligible customer-generator
15 shall be responsible for all expenses involved in purchasing and
16 installing a meter that is able to measure electricity flow in two
17 directions. If an additional meter or meters are installed, the net
18 energy metering calculation shall yield a result identical to that of
19 a single meter. An eligible customer-generator that is receiving
20 service other than through the standard contract or tariff may elect
21 to receive service through the standard contract or tariff until the
22 electric utility reaches the generation limit of this paragraph.
23 Eligibility for net energy metering does not limit an eligible
24 customer-generator's eligibility for any other rebate, incentive, or
25 credit provided by the electric utility, or pursuant to any
26 governmental program, including rebates and incentives provided
27 pursuant to the California Solar Initiative.

28 (2) (A) On an annual basis, beginning in 2003, every electric
29 utility shall make available to the ratemaking authority information
30 on the total rated generating capacity used by eligible
31 customer-generators that are customers of that provider in the
32 provider's service area and the net surplus electricity purchased
33 by the electric utility pursuant to this section.

34 (B) An electric service provider operating pursuant to Section
35 394 shall make available to the ratemaking authority the
36 information required by this paragraph for each eligible
37 customer-generator that is their customer for each service area of
38 an electric corporation, local publicly owned electric utility, or
39 electrical cooperative, in which the eligible customer-generator
40 has net energy metering.

1 (C) The ratemaking authority shall develop a process for making
2 the information required by this paragraph available to electric
3 utilities, and for using that information to determine when, pursuant
4 to paragraphs (1) and (3), an electric utility is not obligated to
5 provide net energy metering to additional eligible
6 customer-generators in its service area.

7 (3) An electric utility is not obligated to provide net energy
8 metering to additional eligible customer-generators in its service
9 area when the combined total peak demand of all electricity used
10 by eligible customer-generators served by all the electric utilities
11 in that service area furnishing net energy metering to eligible
12 customer-generators exceeds 2.5 percent of the aggregate customer
13 peak demand of those electric utilities.

14 (4) By January 1, 2010, the commission, in consultation with
15 the Energy Commission, shall submit a report to the Governor and
16 the Legislature on the costs and benefits of net energy metering
17 and net surplus electricity compensation, wind energy co-metering,
18 and co-energy metering to participating customers and
19 nonparticipating customers and with options to replace the
20 economic costs and benefits of net energy metering, wind energy
21 co-metering, and co-energy metering with a mechanism that more
22 equitably balances the interests of participating and
23 nonparticipating customers, and that incorporates the findings of
24 the report on economic and environmental costs and benefits of
25 net metering required by subdivision (n).

26 (5) For purposes of this section, the generating capacity used
27 to generate net surplus electricity shall not be included in
28 determining whether the total rated generating capacity used by
29 eligible customer-generators exceeds 2.5 percent of the electric
30 utility's aggregate customer peak demand.

31 ~~(6) An electric utility is not obligated to purchase net surplus~~
32 ~~electricity from additional eligible customer-generators when the~~
33 ~~total rated generating capacity used to generate net surplus~~
34 ~~electricity exceeds 5 percent of the electric utility's aggregate~~
35 ~~customer peak demand.~~

36 (d) Every electric utility shall make all necessary forms and
37 contracts for net energy metering and net surplus electricity
38 compensation service available for download from the Internet.

39 (e) (1) Every electric utility shall ensure that requests for
40 establishment of net energy metering and net surplus electricity

1 compensation are processed in a time period not exceeding that
2 for similarly situated customers requesting new electric service,
3 but not to exceed 30 working days from the date it receives a
4 completed application form for net energy metering service or net
5 surplus electricity compensation, including a signed interconnection
6 agreement from an eligible customer-generator and the electric
7 inspection clearance from the governmental authority having
8 jurisdiction.

9 (2) Every electric utility shall ensure that requests for an
10 interconnection agreement from an eligible customer-generator
11 are processed in a time period not to exceed 30 working days from
12 the date it receives a completed application form from the eligible
13 customer-generator for an interconnection agreement.

14 (3) If an electric utility is unable to process a request within the
15 allowable timeframe pursuant to paragraph (1) or (2), it shall notify
16 the eligible customer-generator and the ratemaking authority of
17 the reason for its inability to process the request and the expected
18 completion date.

19 (f) (1) If a customer participates in direct transactions pursuant
20 to paragraph (1) of subdivision (b) of Section 365 with an electric
21 service provider that does not provide distribution service for the
22 direct transactions, the electric utility that provides distribution
23 service for the eligible customer-generator is not obligated to
24 provide net energy metering or net surplus electricity compensation
25 to the customer.

26 (2) If a customer participates in direct transactions pursuant to
27 paragraph (1) of subdivision (b) of Section 365 with an electric
28 service provider, and the customer is an eligible
29 customer-generator, the electric utility that provides distribution
30 service for the direct transactions may recover from the customer's
31 electric service provider the incremental costs of metering and
32 billing service related to net energy metering and net surplus
33 electricity compensation in an amount set by the ratemaking
34 authority.

35 (g) Except for the time-variant kilowatthour pricing portion of
36 any tariff adopted by the commission pursuant to paragraph (4) of
37 subdivision (a) of Section 2851, each net energy metering contract
38 or tariff shall be identical, with respect to rate structure, all retail
39 rate components, and any monthly charges, to the contract or tariff
40 to which the same customer would be assigned if the customer did

1 not use an eligible solar or wind electrical generating facility,
2 except that eligible customer-generators shall not be assessed
3 standby charges on the electrical generating capacity or the
4 kilowatthour production of an eligible solar or wind electrical
5 generating facility. The charges for all retail rate components for
6 eligible customer-generators shall be based exclusively on the
7 customer-generator's net kilowatthour consumption over a
8 12-month period, without regard to the eligible
9 customer-generator's choice as to whom it purchases electricity
10 from that is not self-generated. Any new or additional demand
11 charge, standby charge, customer charge, minimum monthly
12 charge, interconnection charge, or any other charge that would
13 increase an eligible customer-generator's costs beyond those of
14 other customers who are not eligible customer-generators in the
15 rate class to which the eligible customer-generator would otherwise
16 be assigned if the customer did not own, lease, rent, or otherwise
17 operate an eligible solar or wind electrical generating facility are
18 contrary to the intent of this section, and shall not form a part of
19 net energy metering contracts or tariffs.

20 (h) For eligible customer-generators, the net energy metering
21 calculation shall be made by measuring the difference between
22 the electricity supplied to the eligible customer-generator and the
23 electricity generated by the eligible customer-generator and fed
24 back to the electric grid over a 12-month period. The following
25 rules shall apply to the annualized net metering calculation:

26 (1) The eligible residential or small commercial
27 customer-generator shall, at the end of each 12-month period
28 following the date of final interconnection of the eligible
29 customer-generator's system with an electric utility, and at each
30 anniversary date thereafter, be billed for electricity used during
31 that 12-month period. The electric utility shall determine if the
32 eligible residential or small commercial customer-generator was
33 a net consumer or a net surplus customer-generator during that
34 period.

35 (2) At the end of each 12-month period, where the electricity
36 supplied during the period by the electric utility exceeds the
37 electricity generated by the eligible residential or small commercial
38 customer-generator during that same period, the eligible residential
39 or small commercial customer-generator is a net electricity
40 consumer and the electric utility shall be owed compensation for

1 the eligible customer-generator's net kilowatthour consumption
2 over that 12-month period. The compensation owed for the eligible
3 residential or small commercial customer-generator's consumption
4 shall be calculated as follows:

5 (A) For all eligible customer-generators taking service under
6 contracts or tariffs employing "baseline" and "over baseline" rates,
7 any net monthly consumption of electricity shall be calculated
8 according to the terms of the contract or tariff to which the same
9 customer would be assigned to, or be eligible for, if the customer
10 was not an eligible customer-generator. If those same
11 customer-generators are net generators over a billing period, the
12 net kilowatthours generated shall be valued at the same price per
13 kilowatthour as the electric utility would charge for the baseline
14 quantity of electricity during that billing period, and if the number
15 of kilowatthours generated exceeds the baseline quantity, the excess
16 shall be valued at the same price per kilowatthour as the electric
17 utility would charge for electricity over the baseline quantity during
18 that billing period.

19 (B) For all eligible customer-generators taking service under
20 contracts or tariffs employing "time of use" rates, any net monthly
21 consumption of electricity shall be calculated according to the
22 terms of the contract or tariff to which the same customer would
23 be assigned to, or be eligible for, if the customer was not an eligible
24 customer-generator. When those same customer-generators are
25 net generators during any discrete time-of-use period, the net
26 kilowatthours produced shall be valued at the same price per
27 kilowatthour as the electric utility would charge for retail
28 kilowatthour sales during that same time of use period. If the
29 eligible customer-generator's time of use electrical meter is unable
30 to measure the flow of electricity in two directions, subparagraph
31 (A) of paragraph (1) of subdivision (c) shall apply.

32 (C) For all eligible residential and small commercial
33 customer-generators and for each billing period, the net balance
34 of moneys owed to the electric utility for net consumption of
35 electricity or credits owed to the eligible customer-generator for
36 net generation of electricity shall be carried forward as a monetary
37 value until the end of each 12-month period. For all eligible
38 commercial, industrial, and agricultural customer-generators, the
39 net balance of moneys owed shall be paid in accordance with the
40 electric utility's normal billing cycle, except that if the eligible

1 commercial, industrial, or agricultural customer-generator is a net
2 electricity producer over a normal billing cycle, any excess
3 kilowatthours generated during the billing cycle shall be carried
4 over to the following billing period as a monetary value, calculated
5 according to the procedures set forth in this section, and appear as
6 a credit on the eligible commercial, industrial, or agricultural
7 customer-generator's account, until the end of the annual period
8 when paragraph (3) shall apply.

9 (3) At the end of each 12-month period, where the electricity
10 generated by the eligible customer-generator during the 12-month
11 period exceeds the electricity supplied by the electric utility during
12 that same period, the eligible customer-generator is a net surplus
13 customer-generator and the electric utility shall, upon an
14 affirmative election by the eligible customer-generator, *either: (A)*
15 *provide net surplus electricity compensation for any net surplus*
16 *electricity generated during the prior 12-month period, or (B) allow*
17 *the eligible customer-generator to apply the net surplus electricity*
18 *as a credit for kilowatthours consumed during the following*
19 *12-month period.* For an eligible customer-generator that does not
20 affirmatively elect to receive service pursuant to net surplus
21 electricity compensation, the electric utility shall retain any excess
22 kilowatthours generated during the prior 12-month period. The
23 eligible customer-generator shall not be owed any compensation
24 for the net surplus electricity unless the electric utility enters into
25 a purchase agreement with the eligible customer-generator for
26 those excess kilowatthours. Every electric utility shall, by January
27 31, 2009, provide notice to eligible customer-generators that they
28 are eligible to receive net surplus electricity compensation for net
29 surplus electricity, that they must elect to receive net surplus
30 electricity compensation, and that the 12-month period commences
31 when the electric utility receives the eligible customer-generator's
32 election. The commission may, for an electric utility that is an
33 electrical corporation or electrical cooperative, adopt requirements
34 for providing notice and the manner by which eligible
35 customer-generators may elect to receive net surplus electricity
36 compensation.

37 (4) (A) The ratemaking authority shall, by July 1, 2009,
38 establish a net surplus electricity compensation rate to compensate
39 the net surplus customer-generator for all net surplus electricity
40 generated by the net surplus customer-generator. The commission

1 shall establish the rate in a ratemaking proceeding. The ratemaking
2 authority for a local publicly owned electric utility shall establish
3 the rate in a public proceeding. The net surplus electricity
4 compensation rate shall be established so as to provide the net
5 surplus customer-generator just and reasonable compensation for
6 the net surplus electricity. The ratemaking authority shall determine
7 whether the compensation will include, where appropriate
8 justification exists, one or more of the following components:

- 9 (i) The value of the electricity itself.
- 10 (ii) The value of the renewable attributes of the electricity.
- 11 (iii) The carbon value or other environmental attributes of the
12 electricity.
- 13 (iv) The time-of-use value or peak demand value of the
14 electricity.
- 15 (v) The distributed generation value of the electricity.

16 (B) In establishing the rate pursuant to subparagraph (A), the
17 ratemaking authority shall ensure that the rate does not result in a
18 shifting of costs between solar customer-generators and other
19 bundled service customers.

20 ~~(5) (A) Upon adoption of the net surplus electricity~~
21 ~~compensation rate by the ratemaking authority, any renewable~~
22 ~~energy credit, as defined in Section 399.12, for net surplus~~
23 ~~electricity purchased by the electric utility shall belong to the~~
24 ~~electric utility. Any renewable energy credit associated with~~
25 ~~electricity generated by the eligible customer-generator that is~~
26 ~~utilized by the eligible customer-generator shall remain the property~~
27 ~~of the eligible customer-generator.~~

28 ~~(B) Upon adoption of the net surplus electricity compensation~~
29 ~~rate by the ratemaking authority, the net surplus electricity~~
30 ~~purchased by the electric utility shall count toward the electric~~
31 ~~utility's renewables portfolio standard annual procurement targets~~
32 ~~for purposes of paragraph (1) of subdivision (b) of Section 399.15;~~
33 ~~or for a local publicly owned electric utility, the renewables~~
34 ~~portfolio standard annual procurement targets established pursuant~~
35 ~~to Section 387.~~

36 ~~(6)~~
37 (5) The electric utility shall provide every eligible residential
38 or small commercial customer-generator with net electricity
39 consumption and net surplus electricity generation information
40 with each regular bill. That information shall include the current

1 monetary balance owed the electric utility for net electricity
2 consumed, or the net surplus electricity generated, since the last
3 12-month period ended. Notwithstanding this subdivision, an
4 electric utility shall permit that customer to pay monthly for net
5 energy consumed.

6 ~~(7)~~

7 (6) If an eligible residential or small commercial
8 customer-generator terminates the customer relationship with the
9 electric utility, the electric utility shall reconcile the eligible
10 customer-generator's consumption and production of electricity
11 during any part of a 12-month period following the last
12 reconciliation, according to the requirements set forth in this
13 subdivision, except that those requirements shall apply only to the
14 months since the most recent 12-month bill.

15 ~~(8)~~

16 (7) If an electric service provider or electric utility providing
17 net energy metering to a residential or small commercial
18 customer-generator ceases providing that electric service to that
19 customer during any 12-month period, and the customer-generator
20 enters into a new net energy metering contract or tariff with a new
21 electric service provider or electric utility, the 12-month period,
22 with respect to that new electric service provider or electric utility,
23 shall commence on the date on which the new electric service
24 provider or electric utility first supplies electric service to the
25 customer-generator.

26 (i) Notwithstanding any other provisions of this section, the
27 following provisions shall apply to an eligible customer-generator
28 with a capacity of more than 10 kilowatts, but not exceeding one
29 megawatt, that receives electric service from a local publicly owned
30 electric utility that has elected to utilize a co-energy metering
31 program unless the local publicly owned electric utility chooses
32 to provide service for eligible customer-generators with a capacity
33 of more than 10 kilowatts in accordance with subdivisions (g) and
34 (h):

35 (1) The eligible customer-generator shall be required to utilize
36 a meter, or multiple meters, capable of separately measuring
37 electricity flow in both directions. All meters shall provide
38 "time-of-use" measurements of electricity flow, and the customer
39 shall take service on a time-of-use rate schedule. If the existing
40 meter of the eligible customer-generator is not a time-of-use meter

1 or is not capable of measuring total flow of energy in both
2 directions, the eligible customer-generator shall be responsible for
3 all expenses involved in purchasing and installing a meter that is
4 both time-of-use and able to measure total electricity flow in both
5 directions. This subdivision shall not restrict the ability of an
6 eligible customer-generator to utilize any economic incentives
7 provided by a government agency or an electric utility to reduce
8 its costs for purchasing and installing a time-of-use meter.

9 (2) The consumption of electricity from the local publicly owned
10 electric utility shall result in a cost to the eligible
11 customer-generator to be priced in accordance with the standard
12 rate charged to the eligible customer-generator in accordance with
13 the rate structure to which the customer would be assigned if the
14 customer did not use an eligible solar or wind electrical generating
15 facility. The generation of electricity provided to the local publicly
16 owned electric utility shall result in a credit to the eligible
17 customer-generator and shall be priced in accordance with the
18 generation component, established under the applicable structure
19 to which the customer would be assigned if the customer did not
20 use an eligible solar or wind electrical generating facility.

21 (3) All costs and credits shall be shown on the eligible
22 customer-generator's bill for each billing period. In any months
23 in which the eligible customer-generator has been a net consumer
24 of electricity calculated on the basis of value determined pursuant
25 to paragraph (2), the customer-generator shall owe to the local
26 publicly owned electric utility the balance of electricity costs and
27 credits during that billing period. In any billing period in which
28 the eligible customer-generator has been a net producer of
29 electricity calculated on the basis of value determined pursuant to
30 paragraph (2), the local publicly owned electric utility shall owe
31 to the eligible customer-generator the balance of electricity costs
32 and credits during that billing period. Any net credit to the eligible
33 customer-generator of electricity costs may be carried forward to
34 subsequent billing periods, provided that a local publicly owned
35 electric utility may choose to carry the credit over as a kilowatthour
36 credit consistent with the provisions of any applicable contract or
37 tariff, including any differences attributable to the time of
38 generation of the electricity. At the end of each 12-month period,
39 the local publicly owned electric utility may reduce any net credit
40 due to the eligible customer-generator to zero.

1 (j) A solar or wind turbine electrical generating system, or a
2 hybrid system of both, used by an eligible customer-generator shall
3 meet all applicable safety and performance standards established
4 by the National Electrical Code, the Institute of Electrical and
5 Electronics Engineers, and accredited testing laboratories, including
6 Underwriters Laboratories and, where applicable, rules of the
7 commission regarding safety and reliability. A customer-generator
8 whose solar or wind turbine electrical generating system, or a
9 hybrid system of both, meets those standards and rules shall not
10 be required to install additional controls, perform or pay for
11 additional tests, or purchase additional liability insurance.

12 (k) If the commission determines that there are cost or revenue
13 obligations for an electric corporation, as defined in Section 218,
14 that may not be recovered from customer-generators acting
15 pursuant to this section, those obligations shall remain within the
16 customer class from which any shortfall occurred and may not be
17 shifted to any other customer class. Net energy metering and
18 co-energy metering customers shall not be exempt from the public
19 goods charges imposed pursuant to Article 7 (commencing with
20 Section 381), Article 8 (commencing with Section 385), or Article
21 15 (commencing with Section 399) of Chapter 2.3 of Part 1. In its
22 report to the Legislature, the commission shall examine different
23 methods to ensure that the public goods charges remain
24 nonbypassable.

25 (l) A net energy metering, co-energy metering, or wind energy
26 co-metering customer shall reimburse the Department of Water
27 Resources for all charges that would otherwise be imposed on the
28 customer by the commission to recover bond-related costs pursuant
29 to an agreement between the commission and the Department of
30 Water Resources pursuant to Section 80110 of the Water Code,
31 as well as the costs of the department equal to the share of the
32 department's estimated net unavoidable power purchase contract
33 costs attributable to the customer. The commission shall
34 incorporate the determination into an existing proceeding before
35 the commission, and shall ensure that the charges are
36 nonbypassable. Until the commission has made a determination
37 regarding the nonbypassable charges, net energy metering,
38 co-energy metering, and wind energy co-metering shall continue
39 under the same rules, procedures, terms, and conditions as were
40 applicable on December 31, 2002.

1 (m) In implementing the requirements of subdivisions (k) and
2 (l), an eligible customer-generator shall not be required to replace
3 its existing meter except as set forth in subparagraph (A) of
4 paragraph (1) of subdivision (c), nor shall the electric utility require
5 additional measurement of usage beyond that which is necessary
6 for customers in the same rate class as the eligible
7 customer-generator.

8 (n) It is the intent of the Legislature that the Treasurer
9 incorporate net energy metering, including net surplus electricity
10 compensation, co-energy metering, and wind energy co-metering
11 projects undertaken pursuant to this section as sustainable building
12 methods or distributive energy technologies for purposes of
13 evaluating low-income housing projects.

14 SEC. 4. No reimbursement is required by this act pursuant to
15 Section 6 of Article XIII B of the California Constitution because
16 the only costs that may be incurred by a local agency or school
17 district will be incurred because this act creates a new crime or
18 infraction, eliminates a crime or infraction, or changes the penalty
19 for a crime or infraction, within the meaning of Section 17556 of
20 the Government Code, or changes the definition of a crime within
21 the meaning of Section 6 of Article XIII B of the California
22 Constitution.